Approved for use through 10/31/2002. OMB 0651-0031

Complete if Known

09/724,231

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Number

Special Stitute for form 1449A/PTO

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

11/28/2000 Filing Date First Named Inventor Balachandran et al. N/A **Group Art Unit**

(use as many sheets as necessary)

N/A **Examiner Name** LUC-280/Balachandran 15-43 Attorney Docket Number of

	U.S. PATENT DOCUMENTS							
Examiner Initials *	Cite No.1	U.S. Patent Document Number Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relev Passages or Relevant Figures Appear			
M	A1	4,493,082	Cumberton et al.	JAN-08-1985				
1/1	A2	5,119,400	Koch	JUN-2-1992				
7.11.	A3	5,134,635	Hong et al.	JUL-28-1992				
1/2	A4	5,144,644	Borth	SEP-01-1992				
ivak.	A5	5,164,961	Gudmundson	NOV-17-1992				
6h	A6	5,271,042	Borth et al.	DEC-14-1993				
als.	A7	5,313,495	Kim	MAY-17-1994				
6/1.	A8	5,390,198	Higgins	FEB-14-1995				
14.	A9	5,406,562	Roney, IV	APR-11-1995				
Zh.	A10	5,453,997	Roney, IV	SEP-26-1995				
3/11	A11	5,493,584	Emeott	FEB-20-1996				
ah	A12	5,479,419	Naoi et al.	DEC-26-1995				
ala.	A13	5,502,735	Cooper	MAR-26-1996				
4/1	A14	5,537,444	Nill et al.	JUL-16-1996				
ah	A15	5,566,191	Ohnishi et al.	OCT-15-1996				
ANA	A16	5,579,344	Namekata	NOV-26-1996				
NV	A17	5,581,577	Abe	DEC03-1996				
gh,	A18	5,754,600	Rahnema	MAY-19-1998				
251	A19	5,757,821	Jamal et al.	MAY-26-1998				
4K /	A20	5,768,285	Griep et al.	JUN-16-1998				

	FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Foreign Patent Document		Name of Patentee	Date of Publication of	Pages, Columns, Lines, Where Relevant		
		Office ³	Number ⁴	Kind Code ⁵ (<i>if known</i>)	or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	Т ₆
	ļ							
		 						
		 				<u> </u>		
			 					-
		 						
		 						
			<u></u>					

			,
Examiner Signature	Color Hawa	Date Considered	1-23-2004

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark hee if English language Translation is attached.

Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Supplitute for form 1449A/PTO

2

NFORMATION DISCLOSURE STATEMENT BY APPLICANT

of

Complete if Known **Application Number** 09/724,231 11/28/2000 Filing Date First Named Inventor Balachandran et al. Group Art Unit N/A N/A Examiner Name LUC-280/Balachandran 15-43 Attorney Docket Number

(use as many sheets as necessary) Sheet

U.S. PATENT DOCUMENTS U.S. Patent Document Date of Publication of Pages, Columns, Lines, Where Relevant Name of Patentee or Applicant Examiner Cite No. Passages or Relevant of Cited Documen Cited Document Kind Code Initials Figures Appear Number MM-DD-YYYY (if known) SEP-01-1998 Baker et al. A21 5,802,116 SEP-15-1989 5,809,071 Kobayashi et al. A22 OCT-06-1998 A23 5,818,876 Love NOV-17-1998 A24 5,838,697 Abe JAN-26-1999 Mourot et al. A25 5,864,589 DEC-1-1998 A26 5,844,946 Nagayasu FEB-2-1999 A27 5,867,531 Shiino et al.

	FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Foreign Patent Document			Name of Patentee	Date of Publication of	Pages, Columns, Lines, Where Relevant	
		Office ³	Number ⁴	Kind Code ⁵ (<i>if known</i>)	or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	Τ ₆
	ļ							
		 						

Examiner Signature	add Chang	Date Considered	1-23-2004

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark hee if English language Translation is attached.

Sheet

PTO/SB/08A (10-96)

Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

of | 3

(use as many sheets as necessary)

Complete if Known					
Application Number	09/724,231				
Filing Date	11/28/2000				
First Named Inventor	Balachandran et al.				
Group Art Unit	N/A				
Examiner Name	N/A				
Attorney Docket Number	LUC-280/Balachandran 15-43				

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²			
4h	C1	ERICSSON; EGPRS Link Quality Control Measurements and Filtering; ETSI SMG2 Working Session on EDGE; August 24-27, pp. 1-7; 1999; Paris, France.				
W.	C2	HAGENAUER, Joachim; HOEHER, Peter; A Viterbi Algorithm with Soft-Decision Outputs and its Applications; 1989; pp. 1680-1686; IEEE; New York, N.Y.				
W.	СЗ	BAHL, L.R.; COCKE, F; JELINEK; and RAVIV, J.; Optimal Decoding of Linear Codes for Minimizing Symbol Error Rate; IEEE Transactions on Information Theory; March, 1974; pp. 284-287; New York, N.Y.				
<u> </u>						

Examiner Signature	Elkalang	Date Considered バーンターンの4

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.